

WHAT IS CLAIMED IS:

1. An audio encoder including dividing means for dividing an input signal into a plurality of frequency bands and outputting a plurality of sub-band signals, and performing compression-encoding for the individual sub-band signals outputted from said dividing means, wherein said audio encoder further comprises bit-allocating means,

said bit-allocating means performing weighting in conformity to an equal-loudness curve that connects points representing pressure values of sounds having the same auditory loudness level for each frequency of the individual sub-band signals, and performing bit allocation to equalize a weighted quantization error in the individual sub-band signals.

2. An audio encoder according to claim 1, wherein  
said bit-allocating means comprises a memory unit, and  
said memory unit stores a table specifying weighting coefficients  
conforming to said equal-loudness curve for the individual sub-band  
signals.

3. An audio encoder according to claim 2, wherein  
said memory unit further stores a weighting table specifying  
weighting coefficients corresponding to encoding bit rates, and  
said bit-allocating means performs bit allocation to equalize a  
weighted quantization error corresponding to the encoding bit rate in the  
individual sub-band signals.

4. An audio encoder according to claim 3, wherein  
said memory unit stores a plurality of weighting tables  
corresponding to the encoding bit rates, and  
said bit-allocating means selectively uses an appropriate one of  
said plurality of weighting tables.



same auditory loudness level for each frequency of the individual sub-band signals; and

performing bit allocation to equalize a weighted quantization error in the individual sub-band signals.

8. A psychoacoustic analyzing method according to claim 7, wherein said step of performing bit allocation performs bit allocation for the individual sub-band signals according to the contents of a table specifying weighting coefficients.

9. A psychoacoustic analyzing method according to claim 8, wherein said step of performing bit allocation performs bit allocation according to the contents of a weighting table specifying weighting coefficients corresponding to encoding bit rates to equalize a weighted quantization error corresponding to the encoding bit rate in the individual sub-band signals.

10. A psychoacoustic analyzing method according to claim 9, wherein a plurality of weighting tables corresponding to the encoding bit rates are provided, and an appropriate one of said plurality of weighting tables is selectively used.

11. A psychoacoustic analyzing method according to one of claims 7 to 10, wherein said psychoacoustic analyzing method is applied to an audio-encoding method incorporating the consideration of human-auditory-sense characteristics.